UCRL-JC-118918 abs

Utilizing an Information System to Meet Hazardous Waste Management Needs

John J. Stewart, Jr.
Rakesh K. Kochhar
Donna T. Maloy
Suzanna L. Townsend

Lawrence Livermore National Laboratory
Hazardous Waste Management Division
P.O. Box 808, L-621, Livermore, CA 94550
(510) 422-9877 (phone)
(510) 422-3469 (fax)

Lawrence Livermore National Laboratory (LLNL) is a large quantity RCRA hazardous waste generator. LLNL also generates low level and transuranic radioactive waste that is managed in accordance with the Department of Energy (DOE) orders. The mixed low level and mixed transuranic waste generated must be managed to comply with both RCRA regulations and DOE orders. LLNL's hazardous and radioactive waste generation is comprised of 900 generators who contribute to nearly two hundred waste streams. LLNL has a permitted EPA treatment and storage (TSD) facility for handling RCRA hazardous waste that is operated by LLNL's Hazardous Waste Management (HWM) division. Radioactive and mixed wastes are also handled at this facility. The generators can store their waste for up to 90 days at some 52 waste accumulation areas (WAA) at LLNL. A generator of hazardous waste must submit a waste disposal requisition for review by HWM before their waste is approved for pickup. Once the requisition is approved, HWM will pickup the waste and bring it into its facility for storage. RCRA waste can be stored for up to one year before it is either shipped for disposal or treated at HWM's aqueous waste treatment farm.

In HWM we have been developing an information system, Total Waste Management System (TWMS), to replace an inadequate "cradle to grave" tracking of all the waste types described above. The first phase of this system became operational at the end of September 1994. The goals of this system are to facilitate the safe handling and storage of these hazardous wastes, provide compliance with the regulations and serve as an informational tool to help HWM manage and dispose of these wastes in a cost effective manner. The key to success in utilizing TWMS is insuring the accuracy and completeness of the data entered into the system. The information on the requisition is entered into TWMS where it is validated and checked for consistency before the requisition is finally approved. All hazardous wastes that are brought into the HWM facility are in a container with a unique bar-code affixed to them. A bar-code scanner with inputting capability is used to identify all transactions performed on a container and/or its waste. This information is downloaded to TWMS at the end of each working day and is checked for consistency. We will describe the TWMS in more detail and discuss the benefit of having a system that is integrated into the various facets of HWM's operations.

Work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract W7405-Eng-48.